

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008363**Date Inspected:** 24-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 645**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Shen Fu You and Mr. Zhu Zhong Hui

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 13

The QA Inspector observed ZPMC welder Mr. Wu Hai Jun, stencil 201087 is using shielded metal arc procedure WPS-B-P-2213-BU2-FCM to weld SSD018A-009 at OBG panel point 70. The QA Inspector observed a welding current of approximately 150 amps and the base material where the weld is being made had been preheated with a torch. Items observed on this date appeared to generally comply with applicable contract documents.

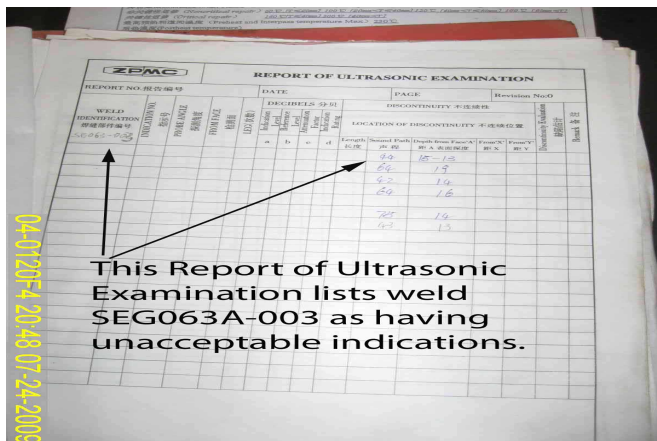
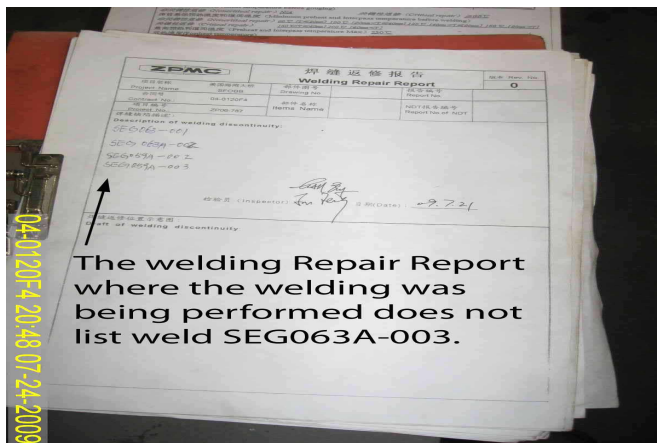
OBG Bay 14

This QA Inspector observed ZPMC welder stencil 202122 is using flux cored welding procedure WPS-345-FCAW-1G(1F)-Repair to make repairs to OBG segment weld SEG063A-001. The QA Inspector observed a welding current of approximately 232 amps, 30.6 volts and base material had been preheated using a hand held torch. The QA Inspector observed ZPMC Quality Control Inspector Mr. Li Ming Yang monitoring this welding. The QA Inspector asked Mr. Yang if these weld repairs are considered critical weld repairs due to the

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depth of the gouges in the base material where the ultrasonic indications had been removed. Mr. Yang said these repairs are critical weld repairs and that they are being documented on a “Weld Repair Sheet” that has been approved. The QA Inspector observed that the “Weld Repair Sheet” does not appear to have been approved or stamped by Caltrans Engineering and that weld SEG063A-001 is not listed on this document. The QA Inspector reviewed the welding procedure specification and it lists a minimum welding current of 280 amps. The QA Inspector informed Mr. Yang this welding current appears to be approximately 45 amps below the minimum allowed by the WPS and Mr. Yang used his welding gauge and he confirmed the welding current is below the minimum allowed by the WPS. The QA Inspector asked Mr. Yang which CWI was responsible for this welding and he informed this QA Inspector that CWI Mr. Shen Fu You is responsible for this welding. The QA Inspector asked Mr. Yang if Mr. Shen Fu You is in OBG Bay 14 where this welding is being performed. Mr. Yang said Mr. Shen Fu You is not in OBG Bay 14 but he will have Mr. Shen Fu You come to the area where this welding is taking place. Approximately 30 minutes later CWI Mr. Shen Fu You arrived where the welding was being performed and he informed this QA Inspector that the three SEG063A-001 weld repair areas that had been welded with low current will be repaired during tomorrow’s dayshift. Items observed by this QA Inspector do not appear to be progressing in compliance with project specifications and this QA Inspector issued a TL-015 Incident Report. See the photographs below for additional information.



Summary of Conversations:

See above.

Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
